

Appl. No. 10/566,536  
Response dated October 19, 2007  
Reply to Office Action of Apr. 19, 2007

### **REMARKS**

This is in response to the Office Action dated April 19, 2007. There are currently 13 claims pending in the case and all claims are rejected. Applicant has added new claims 14 through 18; therefore, there are 18 claims now pending in the case. Applicant submits this response in order to place the case in condition for allowance.

Because of the extensive editing that had to be accomplished in the Specification, Applicant is submitting herewith as part of this response, a Substitute Specification as allowed under the Patent Office rules 37 CFR 1.125, together with replacement sheets of Drawings, Figures 1-8, together with additional figures which help clarify what was submitted in the original application and what is being submitted in the Substitute Specification. Applicant would assert that the Substitute Specification and the new drawings are a clarification of the disclosure that was originally filed in the parent application, and do not constitute new matter. The reformatted materials are being submitted so that there is a better understanding of the technology that is disclosed and claimed in the application.

In view of the submission of the new specification and replacement and new drawing figures, Applicant would assert that the objections to the drawings are now moot, since in the new submission of the drawings, all parts of the drawings have reference characters. Therefore, the objection to the drawings should be withdrawn. Furthermore, the objections to the Specification as submitted in the Office Action are now moot in light of the extensive amendments which help to clarify the Specification. For the same reasons, the objection to the Specification should be withdrawn.

Further, various claims 1-2, 4-6, 11 and 13 were objected to in the Office Action. Again, Applicant has submitted the claim amendments to the various claims and has added four additional claims which Applicant would assert provide the claim language which now render the objections to the claims by the Examiner in the Office Action moot.

Claims 1-2, 6-8, 11 and 13 were rejected to under Section 102(b) as being anticipated by a patent to Biro (the '933 patent).

Further, claims 2-13 are rejected under 35 U.S.C. § 102(b) as being anticipated by a

patent to Kent (the '363 patent). Applicant acknowledges the rejections of the claims by the Examiner and respectfully traverses.

Rejection of Independent Claim 1 as Anticipated by Biro ('933 patent)

Addressing the rejection on Claim 1, as amended, Claim 1 is patentably distinct over Biro. In the review of Biro, it is clear that Biro is not a self-locking mechanism. It is a complex window assembly consisting of several aluminum profiles (more than 2) and it is designed in such a way to block the glass panel in a static manner, not to self-lock. Moreover, Biro is lacking the vital fulcrum action and resulting equilibrium to keep the glass panel on safely when headings are introduced because there are no functional fulcrum or associated hooking provision in the glazing system. Whereas in the current invention, the glass panel is initially locked by engaging the locking mechanism and then by introducing the grooved rubber beadings, the locking mechanism reacts as a result of which the glass panel is kept in equilibrium due to the built-in fulcrum. The current invention has a dynamism which is lacking in Biro.

Furthermore, Biro is a complex window assembly consisting of more than two profiles that have no similarity in shape or function with the two profiles of the present invention. The male profile in Biro is generally L-shaped with two horizontal legs 172 and 173, as seen in figure 4. In the current invention there is only one horizontal leg and it makes an acute angle with a vertical leg. This acute angle differentiates from the Biro system significantly, not only in shape but also in functioning, because this angle facilitates the micro-movement in angular direction in collaboration with the fulcrum.

The insertion of the male profile into the locking mechanism in the current invention is done in a special way, that the horizontal leg of the male profile is inserted horizontally through the gap between the upper and lower leg of the female profile and the locking tip on the leg of the male profile is allowed into the locking chamber by tilting the male profile on its fulcrum by pulling the vertical tip of the male profile outward. This method is different from Biro. The existence of a functional fulcrum in the current invention and its absence in Biro is a basic difference that makes the systems function differently. The feature of further tightening the grip on the glass panel was explained in the amended claim 1 resulting from the tilting action of the

male profile on its fulcrum and the resilience of the rubber beading; this feature is not at all present in Biro.

Rejection of Independent Claim 2 as Anticipated by Biro ('933 patent)

The patent to Biro will be addressed as it relates to Claim 2. First, addressing the the grounds for rejecting subsection (a) of claim 2 by the Examiner, Figure 4 of Biro is a bottom rail with hollow chambers, whereas the female profile in the current invention is solid and has a different configuration. The female profile in the current invention has a precision locking provision incorporated on its upper leg. This has a compatible locking tip with mating face complementing to the mating face of the locking tip on the male profile. This feature does not exist in Biro. The terms, female profile, base, and a gap, the gap being located at the base and the portions mentioned, are common to many mechanisms, but it cannot be assumed that they all are the same. The peripheral similarity based on the nomenclature exists. However, these parts are individually or collectively different in function in our invention. Each and every part of the female profile in the current invention has a well defined function that is unique in many ways. The shape and function of the locking chamber in the gap of the female profile of the current invention has no similarity to the gap in Biro. Part number 116 of Biro is not at all comparable to the upper leg of the current invention, because while the top flat surface of the upper leg supports the glass panel, the provision mating face of the locking tip and the attached locking chamber at the bottom side of the upper leg play a vital role in the locking mechanism.

In addressing the grounds for rejecting subsection (b) of claim 2, Biro has a male profile. The male profile has an upper tip and a leg, but Biro lacks a clearly defined fulcrum, and a complementing locking tip of its leg, both of which have different functions and are unique for our invention.

The fulcrum and the locking tip are the defining primary characters of the male profile in the current invention in the upper tip also functions to retain the beading in position while playing a pivotal role of balancing the forces back and forth due to its built-in fulcrum; whereas in Biro, there is no functional fulcrum and the upper tip of the male profile has a secondary character common to many as a gasket retainer and no function similar to the male profile of the

current invention.

The Oxford dictionary defines “fulcrum” as a fixed point on which a lever moves; i.e., about which rotation can take place. It’s the point beyond which a cantilever extends into space, its other end anchored on the opposite side of the fulcrum. That means two flat surfaces coming in contact with each other throughout its faces cannot be considered as a defined fulcrum. So, Biro is lacking a defined fulcrum.

The most crucial difference between the male profile of Biro and the male profile in the current invention is that the male profile in Biro is L-shaped and the vertical and horizontal legs are perpendicular to each other, whereas the two legs are at an acute angle in the male profile of the current invention. There are two horizontal legs, 172 and 173, in figure 1, in Biro, whereas in the current invention there is only one horizontal leg. Hence, a fair comparison is not possible.

In addressing the grounds for rejecting subsection (c) of claim 2, the argument is not applicable to Biro because the leg interlocking with the gap is not at all possible, as there is no hooking/locking provision provided in the gap of the female profile, and no corresponding locking provision is provided on the leg of the male profile.

The mating face on the locking tip and the attached locking chamber provided on the upper leg of the female profile of the current invention is a precisely designed provision for mating the two locking tips to create a solid locking power, and eventually keeps the glass panel locked in equilibrium between the vertical tips of the profiles.

Since no locking tips are available in Biro and no other locking provision is provided anywhere in the profiles concerned, interlocking is claimed in Biro is impossible, and a fair comparison with the current invention is invalid.

In addressing the grounds for rejecting subsection (d) of claim 2, it is true for both Biro and the current invention that the upper portion of the gap provides the support area for the glass. But the upper portion of the gap in the current invention has the horizontal upper leg, which is a multifunctional element, having a precision locking feature that complements the locking tip of the male profile. This is lacking in Biro.

In the current invention, while the upper leg is providing a support area for the glass panel, the upper tips of the vertical legs of both male and female profiles lock the glass panel from both sides. When the locking tip of the male profile is made to enter the locking chamber by a tilting action and engage with the locking tip of the female locking tip, a solid locking power is generated and that enables the glass panel locked in position between the vertical tips of the profiles of the glazing system.

This unique feature of the complementary locking mechanism is nonexistent in Biro and a fair comparison with the current invention is impossible.

Further, the term upper portion of the gap was used to refer to the multifunctional upper leg 70 in Figure 1A of the female profile in the current invention, and this element has many unique features. The most important feature of the current invention is the precision locking tip and attached locking chamber at the bottom while 113 in Figure 3 in Biro is a totally different element in this regard. The upper leg 70 in the current invention is a complete cantilever extension from the vertical leg, and it is a single piece. Whereas the support area in Biro has two portions 113 and 116 with a vertical wall 114 in between, that acts as a prop. Sole load bearing elements in these two systems are significantly different in the presence of a flat surface in Biro is a very weak point to prove similarity.

In addressing the grounds for rejecting subsection (e) of claim 2, opposite forces in opposite directions are placed on the respective tips of the male and female profiles. The glass is in contact with the tips, which in turn provides opposite forces on the tips of the glazing system, but the forces act only at its tips and stops there in Biro, whereas in the current invention, the forces applied at the vertical tips cause a mating action on the locking tips in the locking chamber due to the built-in fulcrum, and the resulting opposite reaction is returned to the origin to keep the glass panel in equilibrium. This is novel in the present invention, which is lacking in Biro.

Since claims 3-13 and new claims 14-18 depend from both independent claims 1 and 2, Applicant would assert that since the independent claims 1 and 2 are clearly differentiated from the prior art of Biro, that the Biro reference should be withdrawn and the rejection of the

dependent claims likewise be withdrawn by the Examiner since these claims depend on now allowable independent Claims 1 and 2.

Rejection of Independent Claim 2 as Anticipated by Kent ('363 patent)

Turning now to the Kent reference, the rejection of independent Claim 2 under Kent is likewise improper, and Claim 2 is patentably distinct over Kent for the following reasons. Although Kent might have a male profile (8, figure 1) having an upper tip and a leg, Kent does lack a vital element, a functional fulcrum. The fulcrum in the locking tip are the defining primary characters of the male profile in the current invention and the upper tip also functions to retain the rubber beading position by playing a pivotal role of balancing the forces back and forth due to the built-in fulcrum. Whereas, in Kent, there is more functional fulcrum and the upper tip of the male profile has a secondary character common to many as a gasket retainer and no function similar to the male profile of the current invention. Figure 1 of Kent cannot be considered as a functional fulcrum. It may appear like a fulcrum, but it is impossible to function as a fulcrum because of the material used for manufacturing it. The most important aspect of the male profile of the current invention is that it is a well defined fulcrum point, whereas in Kent the claimed fulcrum is round in shape and its contact point is inconsistent. The upper tip in the current invention has an important function of retaining the rubber beading and reacting to any pressure variation. Whereas in Kent, the upper tip has no primary function. The flexible hooking tip on the leg of the male profile is stretched for hooking into the retainer strip 23 which is intermittently welded to the vehicle body in Kent. Whereas, the locking tip of the male profile of the current invention is complimentary to the female locking tip which is continuously built-in for its solid locking power. The stretching end of the hooking tip of the flexible male profile into the retainer strip 23 in Kent causes deformation to the shape of the male profile. Whereas, the male profile in the current invention remains constant due to its rigidity of the metallic profile. This is a very significant difference.

In Kent, the locking tip of the male profile is of plastic material and the retainer strip welded to the vehicle body is metallic. The current invention uses the rigidity of metallic tips in two metallic profiles which enables a solid locking. Whereas, Kent uses the flexibility of the

plastic profile by hooking itself into a metal retainer which is welded to the vehicle body and the profile is self-supported and, as a result, the area behind is hidden. Hence, a fair comparison is not possible due to numerous dissimilarities.

Furthermore, in response to Kent, the Examiner indicated that Kent showed a leg interlocking with the gap as claimed in subsection (c) of claim 2. The continuous compact and rigid interlocking in the current invention is very much different from Kent. The male leg is hooked into the gap in which a retainer strip is intermittently welded to the vehicle body in Kent. Whereas, in the current invention, the leg of the male profile has a built-in interlocking tip interlocking with a complimentary locking tip and attached mating chamber (cavity) which is regular, compatible and continuous. The gap is now clearly defined as an access of entering the locking tip of the male profile and the cavity as locking chamber to remove chamber. The locking tip on the leg of the male profile of the current invention mates with a complimentary locking-face of the same material for a solid locking power. Whereas, in Kent the male profile and its locking tip are made of plastic material and the corresponding retainer strip is made of sheet metal welded intermittently to the vehicle body, hence, performance of both the locking processes are significantly different.

Addressing the grounds of rejecting subsection (d) of claim 2, in the current invention the upper portion of the gap has a cantilever extension from the vertical leg of the female profile called upper leg 70 (figure 1A) while the surface of the upper leg provides support area for the glass panel. The locking tip and associated locking chamber underneath the upper leg interacts with the locking tip of the male profile resulting in the locking of the glass panel from both sides by the vertical tips of the male and female profiles. In Kent, the retainer strip 23 is now a downwardly sloped portion, but a curved sheet which is intermittently welded to the vehicle body in the gap which provides a support area for glass and partly held back by the adhesives and without employing any locking mechanism for fixing the glass. Since glazing is performed by the aid of adhesive and only a portable louvered glass is transferred to the retainer strip and the male profile is self-supported on the hooks for decorative purposes, it is clear by both systems are significantly different in function and comparison with the current invention is not

appropriate.

Addressing now the rejection under claim 2 subsection (e), in Kent more forces are placed on the tips of the male or female profile as stated. The female tip is already filled with adhesive and the male profile cannot accommodate any extra forces due to its nature of hooking to the retainer. The horizontal web 11 of the trim strip 7 is stretched to hook with the retainer strip 23 and a tensile force is exerted on the web 11 that pulls the whole strip 7 towards the vehicle body. This pulling force is distributed to the tip 14 and tip 15 to the glass panel and the vehicle body respectively, equally or unequally, depending on the varying geometry of the vehicle body and the trim strip 7. On the other side of the glass panel the upper tip of the female profile, that is, the upper portion of part 2 as well as the whole of part 2 is stuck to the glass panel by the adhesive sealing 5 which may undergo push or pull action so the transfer of force takes place not only at the tip alone and the magnitude of force in no way related to the force of the male of the tip profile. Thus, in Kent, equal forces of equal magnitude are not applied on both sides of the glass panel. Whereas, in the current invention the forces exerted at the tips are transferred instantly to the locking tips through the fulcrum and returned to the organ as equal and opposite forces and this leads to the balancing of the forces and, hence, the comparison is improper.

Again, since claims 3-13 depended claims of claims 1 and 2, Applicant would assert that the dependent claims are likewise patentable over the prior art, since the independent claims 1 and 2 are also patentable over the patent to Kent.

In view of this submission of the clarified specification and the amended and new claims, Applicant would assert that the claims are now in condition for allowance.

Applicant respectfully submits that the application is in condition for allowance. A Notice of Allowance is hereby respectfully requested.

Should the Examiner feel that a telephone conference would advance the prosecution of this application, he is encouraged to contact the undersigned at the telephone number listed below.

Applicant respectfully petitions the Commissioner for any extension of time necessary



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to render this paper timely.

**Please charge the \$525 requisite three month extension fee to Deposit Account No. 50-0694.** Please charge any additional fees due or credit any overpayment to Deposit Account No. 50-0694.

Respectfully submitted,

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